

# **ImproNet**

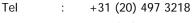
# IXP300/400 CADDX ALARM SERVER Version 1.00

# **SOFTWARE USER MANUAL**

#### IMPRO OFFICES WORLDWIDE

# Impro Benelux BV







Fax +31 (20) 497 3952



F-mail louisd@improbenelux.nl Website www.improbenelux.nl New Yorkstraat 45-47





Airport Business Park Liinden. 1175 RD Lijnden, The Netherlands.

# **Impro USA**



Tel (727) 733 7061 Toll Free 800-390-5837





Fax (727) 736 1031 E-mail info@improus.com

Website www.impro.net Postal

Address

P.O. Box 607, Dunedin, FI 34697

**Physical** 1177 Main Street, Suite A, Dunedin,

Address FL 34698

# Impro South Africa



Tel +27 (31) 700 1087





Fax +27 (31) 700 1511 F-mail impro@impro.net

Website www.impro.net



P.O. Box 15407, Ashwood, Postal Address South Africa, 3605

47 Gillitts Road, Pinetown, Physical

Address South Africa, 3610

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#### READ THIS BEFORE OPENING THE ENVELOPE CONTAINING THE SOFTWARE

# IMPRO CADDX SERVER SOFTWARE

# INSTALLATION AND CONFIGURATION

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# **CADDX SERVER SOFTWARE**

# SCOPE OF THIS MANUAL

This document provides information about the integration of an alarm system, based on the CaddX NetworX NX8-E Control/Communicator Panel, with an ImproNet System.

The purpose of this integration is to allow alarm indications from the CaddX NX8-E Panel to be displayed and acknowledged via the ImproNet Graphics Runtime software.

Such a system would typically include one or two CaddX NX8-E Panels and associated NX-148E Alphanumeric Keypad units, together with alarm sensors.

The electrical connections required are described, as well as an introduction to programming the CaddX NX8-E Control/Communicator Panel (this item is referred to as the CaddX Panel in this document).

This document does not provide any detailed information on programming the CaddX panel. That information is part of the CaddX documentation.

# ASSOCIATED MANUALS

Further information can be found in:

- (a) CaddX NXE-8 Control/Communicator Installation Manual NXE8EIA00.
- (b) ImproNet Graphics Runtime User Manual IXP332-0-0-GB-04.

# INTRODUCTION

The Impro CaddX Server permits alarms from CaddX NXE-8 Panel to be displayed, and acknowledged, from the graphics floor plan in an ImproNet System. It also permits the arming and disarming of alarm partitions (see **CADDX SYSTEM TERMINOLOGY** later in this manual for a definition of a partition).

The Impro CaddX Server Software allows for the use of the General Electric CaddX NX8-E Control board in conjunction with the Impro Graphics Runtime package.

This Software is provided as part of the ImproNet System Software Suite from ImproNet V7.08 onwards.

# GENERAL INFORMATION

#### DONGLES / LICENCING

The CaddX Server does not need a dongle to run. However, each Graphics Runtime package needs to be unlocked via the ProxMate to operate with the CaddX software.

# CADDX SYSTEM TERMINOLOGY

It is essential that you know the CaddX terminology listed here when integrating CaddX

NX8-E Panels with an ImproNet System.

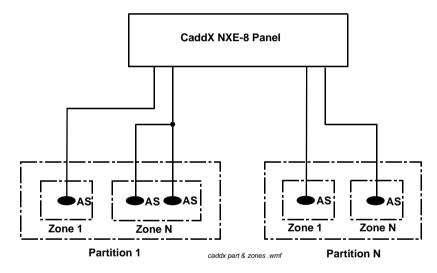
NOTE: The terms Location and Zone used in this document have meanings specific to the CaddX System, and are not related in any way to the same terms as used in ImproNet.

# **Partitions and Zones**

Each CaddX Alarm System is divided into Partitions and Zones. Each Partition can contain several Zones (see Figure 1).

A Partition is an abstract area, and its boundaries are set purely for convenience. On the other hand, a Zone is defined by the physical location of sensors in that Zone and the hard wiring of these sensors to the CaddX Panel.

Several sensors can be used in each Zone, but if this is the case there is no way of differentiating between them. For this reason, any alarm condition in a given Zone would be indicated on the ImproNet floor plan by the same alarm icon.



AS = Alarm Sensor

Figure 1: CaddX Alarm System Partitions and Zones - concept

Typically, a Partition could be a department, and a Zone an office.

It is also possible for a given Zone to be part of more than one Partition, for example, it could be a Reception area common to two departments (see Figure 2).

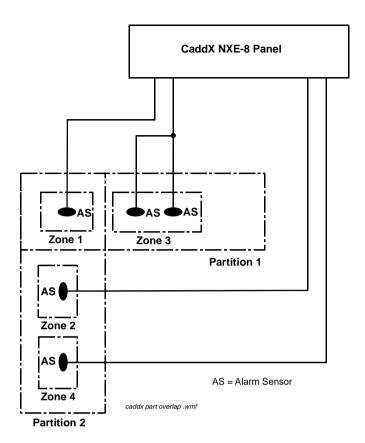


Figure 2: Partition overlap

# Locations, Segments and Bits

Individual memory Locations within the CaddX Panel memory are defined as Bits within Segments within Locations (see Figure 2).

A Location may contain several Segments (see the CaddX installation manual for details), and each Segment contains 8 Bits.

See next page

# Division of Locations, Segments and Bits in CaddX NXE-8 memory

Figure 3 shows the division of the CaddX Panel memory.

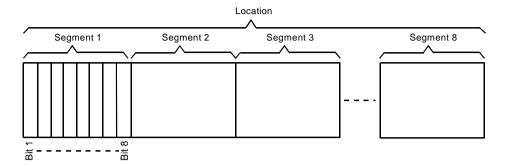


Figure 3: Division of Locations, Segments and Bits in CaddX NXE-8 memory

This information is merely provided to help with the settings described under **CADDX NXE-8 PANEL PROGRAMMING**. For further details please refer to the CaddX documentation.

## CAUTION

Programming of Bits should only be done by an experienced programmer with a full understanding of the meaning of each Bit concerned. Errors in this programming could have a serious impact on the operation of the system.

#### PRELIMINARY REQUIREMENTS

The CaddX alarm system must be fully operational as a stand-alone system before integrating it with the ImproNet System.

The following items must have been set up in the CaddX Panel Software before configuring the ImproNet software:

Zone Names

Partition Names for the various alarm areas must be known.

# SFRVFR DESCRIPTION

#### **GENERAL**

ImproNet System Software, from Version 7.08 onwards, includes a CaddX Server module. This software allows alarm signals received from a CaddX NX8-E Control Panel to be displayed on the ImproNet System Floor Plan(s) by the ImproNet Graphics Runtime software.

The CaddX Server software communicates with the ImproNet Graphics Runtime package.

The related ImproNet software consists of a CaddX Server, which can communicate with one or two CaddX NX8-E Panels via an RS232 link. One or more Impro Graphics Runtime packages can then connect to the CaddX Server in order to display alarms generated in the CaddX system.

These two Impro software programs can run on any machine on the network provided these have access to the ImproNet Database.

#### **ELECTRICAL CONNECTIONS**

The electrical connections between each CaddX Panel and the ImproNet System consist simply of an RS232 link from the CaddX Panel to a PC with access to the ImproNet Database. The CaddX Server allows for the connection of two CaddX Panels to a PC, with a separate Comms port for each.

# Hardware Block Diagram

The connections between a CaddX Panel and an ImproNet System are shown in block diagram form in Figure 4. The only connection required is an RS 232 link.

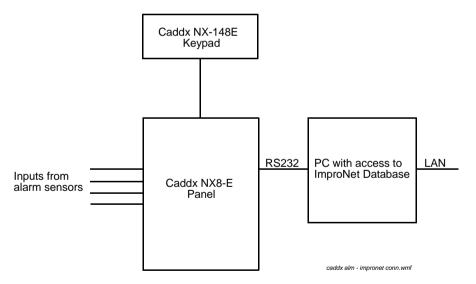


Figure 4 : CaddX /ImproNet interface - block diagram

#### RS232 Connection from CaddX NX8-E Control/Communicator to PC

This connection is made using a ribbon cable (supplied with the CaddX unit). If necessary, this link can be extended using the RS232 shielded multi-core cable

supplied.

The ribbon cable has a 9-way D-type connector at one end, and a Molex 10-way connector at the other (see Figure 2). It is used to link connector J11 on the CaddX NX8-E Panel to a PC RS232 Comms port.

The RS232 shielded extension cable supplied with the CaddX NX8-E Panel has a 9-way D-type connector at each end. Pins 2, 3 & 5 are connected directly (i.e. with no crossover. The crossover (Tx to Rx) is in the ribbon cable.) (see Figure 5).

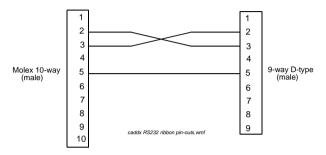


Figure 5: CaddX Control RS232 ribbon cable connector pin-outs

**NOTE:** If you find it necessary to add a further extension cable, please note that the RS232 cross-over (Tx to Rx) is done in the ribbon cable, so that the extension cables are connected directly as shown in Figure 6.



Figure 6 : CaddX Control extension RS232 cable connector pin-outs

**NOTE:** Make sure that the COM port used for the CaddX panel is <u>never</u> changed once it has been selected!

If using two COM ports (for two CaddX systems), <u>never</u> switch the two connections. The CaddX panel has no fixed address, and is referenced in the ImproNet software by the COM port that the PC uses, so switching ports will prevent the system from working correctly.

#### CADDX NXE-8 PANEL PROGRAMMING

Certain configuration actions need to be made via the CaddX keypad panel to allow the software to communicate correctly.

You may need to ask your CaddX installer to program the Panel.

# **Location Programming Example**

Here is an example of how to program a Location (with default user codes), using the CaddX keypad:

- [1] Enter programming mode (\*8).
- [2] Enter Default PIN code (9713).
- [3] Enter Device address (0#).
- [4] Then enter the Location number, followed by #.

# **Compulsory Settings**

- [1] Location 208 Set baud rate to 38400.
- [2] Location 209 ASCII protocol.
- [3] Location 207 Set value to '1' to enable NX584 broadcast.

# **Transition Based**

[1] Location 210, Segment 1, bits 5,6,7,8.

# Command/Request

- [1] Location 211, Segment 1, bits 4,5,6,7,8.
- [2] Location 211, Segment 4, bits 6,8.

# **Further Programming Information**

More detailed programming information is included in the CaddX NX8-E Control/Communicator Installation Manual.

## CONFIGURATION OF THE CADDX SERVER SOFTWARE

# CaddX Server Software Configuration

This section describes the configuration of the CaddX Server.

- [1] Start the CaddX Server from <install dir>/bin/CaddX server.exe.
- [2] The CaddX Server dialog shown in Figure 7 will be displayed.

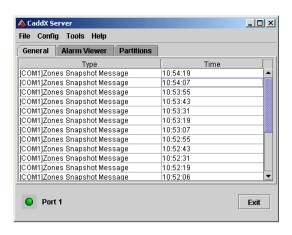


Figure 7: CaddX Server dialog - General Tab selected

# The CaddX Server Menu

The CaddX Server Main Menu Bar includes the following options:

MENU ITEM	OPTION	OPERATIONS/COMMENTS			
File	Exit	Exit CaddX Server.			
Config	Ports	Select RS232 Comm Ports.			
	Zones	Zone editor.			
		Defines Zones to be monitored by the CaddX Server software.			
Tools	Arm/Disarm Partition	Permits the Arming/Disarming of Alarm Partitions on each Port.			
	Walk Test	Currently not available.			
Help	About	This dialog provides release date and version information, and the options listed below.			
	INF	Provides property and value information about software installed.			
	GC	Used to releases unused memory.			
Table 1 : CaddX main menu options					

# CONFIGURATION PROCEDURE

To configure the CaddX Server in a new application, use the procedure below.

# **Comms Port Configuration**

- [1] Select the **Config** option from the menu.
- [2] Select the Ports option. The Select com ports dialog shown in Figure 8 will be displayed. This dialog permits the selection of up to two Comm Ports for use with a CaddX NXE-8 Control/Communicator Panel. The second port can be used for another CaddX Panel.

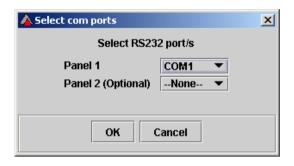


Figure 8 : Select com ports dialog

- [3] Select the Panel 1 drop-down menu. A list of ports will be displayed.
- [4] Select the required Port, and click OK.
- [5] Repeat the procedure for Panel 2 if required.

**NOTE**: The first time you run the CaddX Server, this dialog is automatically displayed.

# CAUTION

Once a COM Port has been selected for use with an alarm panel, DO NOT CHANGE this setting. The ImproNet system software identifies the CaddX NXE-8 Panel and its associated alarms by means of the allocated Port number, as the panel does not have a Fixed Address.

# **Zone Configuration**

NOTE: The names of Zones are defined in the CaddX software, and these names will appear in the Impro CaddX Server displays.

- [1] From the Config menu, select Zones. The Zone editor Port 1 dialog shown in Figure 9 will be displayed.
- [2] Add Zones as required by entering the required Zone Number in the box next to

- the Add button, and clicking Add. In the sample screen, one Zone has been added.
- [3] Zones can be deleted by highlighting the required Zone and clicking the Delete button.
- [4] Click OK when finished.

#### NOTES:

- 1. The CaddX Server software will only monitor Zones that have been added here. Alarms from other Zones are ignored.
- Zone Names are set in the CaddX Panel Software using the CaddX Keypad/Display. They cannot be edited here.
- 3. Only those Zones that have been added to this list can be dropped onto Graphics Floor Plans.



Figure 9 : Zone editor dialog

See next page

# **Tools Configuration**

- [1] Select the Tools Menu.
- [2] Select the Arm/Disarm Partition option.
- [3] The Arm/Disarm Partition dialog shown in Figure 10 will be displayed.



Figure 10 : Arm/Disarm Partition dialog

- [4] Select the required Port from the Port drop-down menu.
- [5] Select the required Partition from the Partition drop-down menu.
- [6] Select the Arm or Disarm radio button as required for that Partition.
- [7] Press OK to perform arm/disarm.

# Help Menu

- [1] Select the Help option from the Main Menu.
- [2] Select the About option. The CaddX Server dialog shown in Figure 11 will be displayed.
- [3] Option INF provides data about the installed software.
- [4] Option GC is currently not available.



Figure 11 : Help Menu CaddX Server dialog

#### General Tab

The General Tab (see Figure 12) is displayed by default when the CaddX Server is first displayed. It displays a list of all transactions received from the Panel. It is useful for confirming that the system is active, and may be referred to for customer support if necessary.

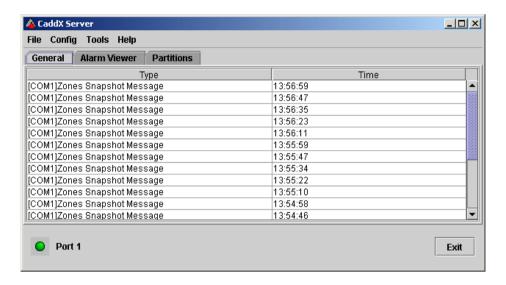


Figure 12 : General Tab information

See next page

# **Alarm Viewer Tab**

This Tab provides information about alarms as shown in Figure 13.

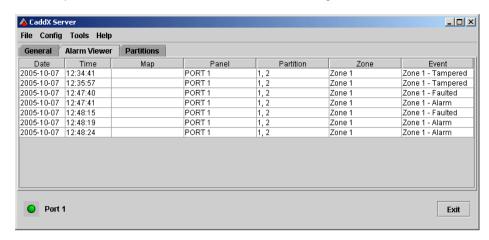


Figure 13: Alarm Viewer Tab information

# **Partitions Tab**

[5] Select the Partitions Tab. The dialog shown below (Figure 14) will be displayed.

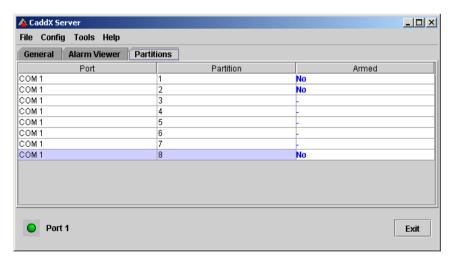


Figure 14: Partitions Tab information

[6] Selecting the Partitions Tab displays information about each Partition connected to

- the Comms Ports used for alarms as shown above.
- [7] Highlight a Partition by left clicking on the relevant row. A blue background indicates which Partition has been highlighted.
- [8] Select the Partition by right-clicking on it.
- [9] The Options Box shown in the next illustration (Figure 15) will be displayed.

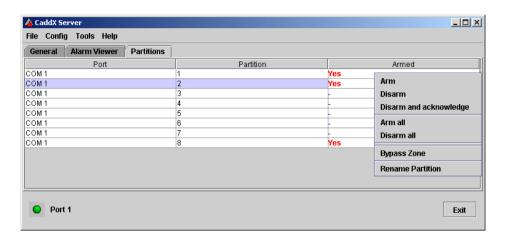


Figure 15: Partition Options Menu

Most of these options are self-explanatory. The options available are:

Arm : Arms the selected Partition.

Disarm : Disarms the selected Partition.

Disarm and acknowledge: Disarms the selected Partition, and acknowledges

alarms in the ImproNet Database for that Port.

Arm all : Arms all Partitions monitored by the CaddX NXE-8

Panel connected to the Comm Port selected?

Disarm all : Disarms all Partitions for that Port/Panel.

Bypass Zone : Permits the bypassing of selected Zones (see next

illustration). This means that Zones can, in effect, be

disconnected from the system.

**NOTE**: A Zone cannot be bypassed while the Partition(s) that include that Zone is (are) armed.

Rename Partition : Provides the option of renaming the selected

Partition.

The new name will take effect when the CaddX Server is restarted.

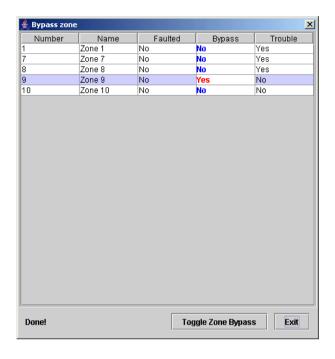


Figure 16: Bypass Zone dialog

Number : Zone Number.

Name : Zone Name.

Faulted : Zone is reported as being faulted\*.

Bypass : To bypass a Zone, select it, and click on Toggle Zone

Bypass (see below).

Trouble : Reports trouble status\*.

Toggle Zone Bypass : Button toggles between Zone Bypassed and Not

Bypassed.

Exit : Click to return to Partition Options Box.

<sup>\*</sup>For definitions of these terms please refer to CaddX documentation.

# **USE OF THE CADDX KEYPAD**

The CaddX Keypad is used to program the CaddX NXE-8 Panel and to manage the alarm system.

# CONFIGURATION OF THE GRAPHICS SOFTWARE

# **Graphics Runtime Software Configuration**

The configuration and acknowledgement of alarms from the CaddX equipment in the Graphics Runtime software is described in the Graphics Runtime Software User Manual.

# **Graphics Designer Software Configuration**

The configuration of CaddX alarm icons in the Graphics Designer software is described in the Graphics Designer Software User Manual.

**LISER'S NOTES** 

# **USER'S NOTES**

#### **USER'S NOTES**

# APPLICABILITY OF THIS MANUAL

Design changes to the system may be made which do not affect this manual. For this reason the software versions quoted here may differ from that in the system. When a change occurs which affects this manual, the manual issue number will change and the software and/or firmware version quoted here will change appropriately. Until that occurs these versions, and any subsequent versions, will be covered by this issue of the manual.

The last two digits of the standard Impro stock code indicate the issue status of the item concerned. This manual is applicable to the Impro CaddX Server Software Module **Version** 1.00 onwards. The next issue of this manual will determine the final software version to which this issue is applicable.

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